Choosing Wisely VI And Other Top Tips

Alan S. Peterson, M.D.
Associate Director, Family & Community Medicine
Walter L. Aument Family Health Center

This is my sixth article in this Journal on "Choosing Wisely" from the Board of Internal Medicine Foundation.[1-5] Each specialty group has or will be developing a minimum "Five Things Physicians and Patients Should Question." My choices of "Top Tips" are included after the Choosing Wisely items. The Choosing Wisely lists covered in this article are from The American College of Rheumatology, The American Geriatrics Society, and The American Society for Clinical Pathology.

THE AMERICAN COLLEGE OF RHEUMATOLOGY RECOMMENDATIONS

1. Don't test ANA sub-serologies without a positive ANA and clinical suspicion of immune-mediated disease. If the ANA is negative, tests for these sub-serologies (including antibodies to double-stranded DNA, Smith, RNP, SSA, SSB, Scl-70, centromere) are usually negative. Exceptions include anti-Jo1, which can be positive in some forms of myositis, or occasionally, anti-SSA, in the setting of lupus or Sjögren's syndrome.

Also, serial ANA testing in patients with known connective tissue diagnoses like lupus does not add any new clinical information. ANA is not a useful marker of disease activity.

2. Don't test for Lyme disease as a cause of musculoskeletal symptoms without a history of exposure and appropriate findings on exam. Musculoskeletal manifestations of Lyme disease include brief attacks of arthralgia or intermittent or persistent episodes of arthritis in one or a few large joints at a time, especially the knee. Lyme testing in the absence of these features increases the likelihood of false positive results and obviously may then lead to unnecessary follow-up and therapy. Diffuse arthralgias, myalgias, or fibromyalgia alone are not criteria for musculoskeletal Lyme disease. Almost 3 million tests for Lyme disease are done each year in the United States at an estimated cost of $100 million.[6]

3. Don't perform MRI of the peripheral joints to routinely monitor inflammatory arthritis. The data that would allow evaluation of MRI for the diagnosis and prognosis of rheumatoid arthritis are currently inadequate to justify widespread use of this technology. Although a single assessment of bone edema by MRI may predict progression in certain RA populations, using MRI routinely is not cost effective. Current standard of care includes assessment of clinical disease activity and plain film radiography.

4. Don't prescribe biologics for rheumatoid arthritis before a trial of methotrexate or other conventional non-biologic disease modifying anti-rheumatic drugs (DMARDs). High quality evidence suggests that methotrexate and other conventional DMARDs are effective in many patients with rheumatoid arthritis. After an initial three month trial, if the response to methotrexate with or without other non-biologic DMARDs is inadequate, then biologic therapy can be considered. Obviously there are exceptions, including patients with high disease activity and poor prognostic features.

5. Don't routinely repeat DEXA scans more often than once every two years. Initial screening for osteoporosis should be performed according to The National Osteoporosis Foundation recommendations. The optimal interval for a repeat Dual-Energy-Xray-Absorptiometry (DEXA) scan is uncertain, because changes in bone density that occur over short intervals are often smaller than the precision of most DEXA scanners. Even in high-risk patients receiving drug therapy for osteoporosis, DEXA changes do not always correlate with the probability of fracture.[7] A recent study in the NEJM (2012 Jan;366(3):225-33) presented data to indicate that when initial screens were normal (or T scores to -1.49), osteoporosis would develop in less than 10% of older postmenopausal women during rescreening intervals of 15 years; for women with moderate osteopenia (T scores, -1.50 to -1.99) during intervals of 5 years; and for women with advanced osteopenia (T scores, -2.00 to -2.49), during an interval of one year.

The American Geriatric Society Recommendations

1. Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral assisted feeding. This is nearly identical to one included in recommendations of The American Academy of Hospice and Palliative Care Medicine. Tube feeding is associated with agitation, increased use of physical and chemical restraints, and worsening pressure ulcers.

2. Don't use antipsychotics as first choice to treat behavioral and psychological symptoms of dementia. Patients with dementia often exhibit aggression, resistance to care, and other challenging or disruptive behaviors. Though antipsychotic medications are often prescribed, they provide limited benefit and can cause serious harm, including stroke and premature death. Use of these drugs should be limited to cases where non-pharmacologic measures have failed and patients pose an imminent threat to themselves or others. Identifying and addressing causes of behavioral change can make drug treatment unnecessary.[8]

3. Avoid using medications to achieve hemoglobin A1c <7.5% in most adults age 65 and older; moderate control is generally better. In older adults with Type II diabetes, there is no evidence that tight glycemic control with medications is beneficial, as it has been consistently shown to produce higher rates of hypoglycemia. Reasonable glycemic targets should be 7.0-7.5% in healthy older adults with long life expectancy, 7.5-8.0% in those with moderate comorbidity and a life expectancy <10 years, and 8.0-9.0% in those with multiple comorbidities and shorter life expectancies.[9]

4. Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation, or delirium. Large scale studies consistently show that the risk of motor vehicle accidents, falls, and hip fractures leading to hospitalization and death can more than double in older adults taking benzodiazepines and other sedative-hypnotics. Use of benzodiazepines should be reserved for alcohol withdrawal symptoms/delirium tremens or severe generalized anxiety disorder unresponsive to other therapies.

5. Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present. Cohort studies have found no adverse outcomes for older men or women associated with asymptomatic bacteriuria. Studies of antimicrobial treatment for asymptomatic bacteriuria in older adults demonstrate no benefits and show increased adverse antimicrobial effects. Consensus criteria have been developed to characterize the specific clinical symptoms that define urinary tract infection associated with bacteriuria. However, screening for and treatment of asymptomatic bacteriuria is recommended before urologic procedures in which mucosal bleeding is anticipated.[10]

The American Society for Clinical Pathology Recommendations

1. Don't perform population based screening for 25-OH-Vitamin D deficiency. Vitamin D deficiency is common in many populations, particularly in patients at higher latitudes, during winter months, and those with limited sun exposure. Laboratory testing is appropriate in higher risk patients when results will be used to institute more aggressive therapy (e.g., osteoporosis, chronic kidney disease, malabsorption, some infections, and obese individuals).

2. Don't perform low risk HPV testing. National guidelines provide for HPV testing in patients over age 21 years, continuing every three years until age 30, and every 5 years between ages 30 and 65. More frequent testing is indicated for HPV if there is a history of cervical cancer CIN2 or higher, immunocompromised patients including HIV, or those exposed to DES in utero. The presence of high risk HPV leads to more frequent examination and more aggressive investigation (e.g., colposcopy and biopsy). There is no medical indication for low risk HPV testing (HPV types that cause genital warts or very minor cell changes on the cervix) because the infection is not associated with disease progression and no change in treatment or therapy is indicated when low risk HPV is identified.[11]

3. Avoid routine preoperative testing for low risk surgeries without a clinical indication. Most preoperative tests (typically a Complete Blood Count, Prothrombin Time and Partial Thomboplastin Time, Basic Metabolic Panel and Urinalysis) performed on elective surgical patients are normal. Findings influence management in under 3% of patients tested. In almost all cases, no adverse outcomes were observed with clinically stable patients who undergo elective surgery, irrespective of whether an abnormal test is identified. Preoperative testing is appropriate in symptomatic patients and those with risk factors for which diagnostic testing can provide clarification of surgical risk.[12]

4. To screen for colon cancer, only order Methylated Septin 9 (SEPT9) when conventional diagnostics are not possible. This specialized plasma test to screen patients for colorectal cancer has sensitivity and specificity similar to commonly ordered stool guaiac or fecal immune tests. In patients who refuse these tests or who decline to have recommended colonoscopy despite counseling, it offers an advantage over no testing, but it should not be considered as an alternative to standard diagnostic procedures when those are possible.

5. Don't use the bleeding time test to guide patient care. The bleeding time test is an older assay that has been replaced by alternative coagulation tests. The relationship between the bleeding time test and the risk of a patient actually bleeding has not been established. Further, the test leaves a scar on the forearm. There are other reliable tests of coagulation available to evaluate the risks of bleeding in appropriate patient populations.

TOP TIPS

EXPERTS: PUBLISH "INVISIBLE" AND "ABANDONED" CLINICAL TRIALS

Freedom-of-information policies have made available thousands of pages of previously confidential clinical trial documents and clinical study reports. In the June 13th online article in The British Medical Journal, experts proposed that the information be used to report previously unpublished "abandoned" or "invisible" trials and correct previously misreported trials. When a trial (usually involving a new drug) remains unpublished years after completion, it is subject to distortion if publications in medical journals present a biased or a misleading description of the design, conduct, or results of an "invisible" trial.

The authors call on institutions that funded and investigators who conducted "abandoned" trials to publish or formally correct or republish studies within the next year. They propose to email a copy of their article to manufacturers in more than 100 trials and demand that the companies signal their intent to publish by sending an email response within a month. The companies contacted would be Amgen, AstraZeneca, Bristol-Myers Squibb, GSK, Merck, Novartis, Pfizer, Roche, Rowlasha, and Takeda. The authors claim to already have in hand about 178,000 pages of previously confidential company research documents for paroxetine, quetiapine, gabapentin, oseltamivir, and clopidogrel.

This new information resulted from policies at the European Medicines Agency and from results of litigation over off-label marketing. The authors solicited volunteers "in place of those who should have but did not make trial reports visible and accessible," and they asked medical journal editors to endorse the concept of restorative authorship to "help the effort to complete and correct the scientific record."

An accompanying editorial states, "nothing better underscores the urgency and the importance of the "restoring invisible and abandoned trials" proposal than the list of abandoned trials that accompanies it. Read it and weep: on the list are clinical trials for drugs used by millions of people. The number and variety of drugs on the list show clearly that incomplete reporting of clinical trial results is not an isolated occurrence."

SURPRISINGLY GOOD SIDE EFFECTS OF YOUR MEDICATIONS

I found a very interesting article in the June/July 2013 *AARP Magazine*. We have all known for many years that many of our patients never fill their prescriptions. That number in some studies comes to about 12%. Another 12% fill the prescription but never take the drug, and up to 22% don't take the full dose of medication. Of course the hope of all doctors is that our patients listen to us, but it is plain to see that about 46% of our communications fail in some respects. Sometimes this is due to a patient fearing harmful side effects.

The following are 8 medications that have been cited as not only being helpful for their primary indication, but also as having other less known beneficial side effects.

1. The flu shot not only helps to prevent the flu in many patients and to keep them out of the hospital with complications, but it also can cut the risk of having a heart attack or stroke by 48%. It may block the inflammatory response our bodies mount to combat a flu infection, thus protecting arterial plaques from rupturing and causing a cardiac event.

2. Physicians have used statin drugs for years to lower cholesterol; however, people diagnosed with cancer who were taking statins daily had a 15% lower risk of death compared to non-statin users according to a 2012 Danish study in *The New England Journal of Medicine*. Quite simply, statins reduce the amount of cholesterol in the body. This is a vital building block

for cells and a shortage of cholesterol may inhibit growth of rapidly dividing cancer cells. One-quarter of people aged 45 or older take statins.

3. Metformin has been the primary drug for Type II diabetes in the last several years. A 2012 review of 7 articles published in the journal *Breast Cancer Research and Treatment* showed that metformin is also linked to a 17% lower risk of breast cancer. Metformin works by increasing insulin sensitivity and decreasing the liver's production of glucose. Women taking metformin for at least three years had a 25% lower risk of breast cancer, possibly due to their improved insulin response. It is speculated that higher insulin levels may fuel cancer cells. Metformin, of course, is also associated with weight loss, so a healthier weight might also be a part of this benefit.

4. Beta blockers have been used to lower blood pressure for years. They have also now been shown to reduce the risk of dementia. Hypertension impairs blood flow to the brain which is one risk factor for developing vascular dementia. In a study at The University of Hawaii, men with hypertension who took beta blockers had about 50% fewer vascular brain lesions and up to 40% fewer Alzheimer's disease lesions, compared with those who had hypertension but weren't being treated. Beta blockers lower pulse rates and enhance blood flow and this may reduce excess strain on blood vessels in the brain.

5. Levodopa and dopamine agonists have been helpful for Parkinson's disease. It now appears that treatment of the tremors and loss of fine motor skills and muscle stiffness can also increase artistic activities. As published this year in *Behavioral Neuroscience*, some patients develop new and impressive creative abilities, including painting and writing. The authors identify two underlying factors: levodopa and dopamine agonists, often used together in Parkinson's treatment, not only improve motor control, but both increase dopamine which presumably is involved in brain pathways that "awaken" and create activity.

6. One of the uses of adalimumab (Humira®) is to treat psoriasis. Research indicates that sufferers are nearly 40% more likely to be depressed than are people without psoriasis. *The Journal of the American Academy of Dermatology* found that patients with moderate to severe psoriasis taking 40 mg of adalimumab every other week for 12 weeks improved their score on a depression test by 6 points. (Scores decreased from 49.2 to 36.2, on average; 50 or higher indicates depression.) Adalimumab reduces TNF-alpha, an inflammatory chemical that causes psoriasis symptoms and is sometimes elevated in people with depression.

7. Of course aspirin is used to prevent heart attacks, but those taking it also improve their odds of surviving colon and prostate cancer. *The Journal of Clinical Oncology* in 2012 reported that at 10 years, patients with prostate cancer who took a daily dose of aspirin had a 57% lower risk of death than those not taking aspirin. In another study in *The New England Journal of Medicine*, colon cancer survivors whose cancer had a specific type of mutation and who regularly took aspirin had much lower cancer-related mortality rates (3% after 5 years versus 26% for those who were not taking aspirin). Aspirin may activate a protein that inhibits the growth of cancer cells.

8. Paroxetine (Paxil®) is an antidepressant but it can also lower the risk of heart failure. It is a selective serotonin reuptake inhibitor (SSRI) and works by balancing out the serotonin in the brain to improve mood. It may also guard again heart problems by inhibiting the function of GRK2, an enzyme that's overproduced during heart failure; this was demonstrated in the journal *ACS Chemical Biology* last year. Other SSRIs don't seem to make a difference.

ARTIFICIAL SWEETENERS ARE NOT AS GOOD AS ONCE THOUGHT

Artificially sweetened beverages are associated with an increased risk of a variety of chronic diseases. This article was published online July 10 in "Trends in Endocrinology & Metabolism." Frequent consumers of these may be at increased risk of excessive weight gain, metabolic syndrome, Type II diabetes and cardiovascular disease. Studies that separately assessed risk among those who were not overweight or obese at baseline found that the risks of becoming overweight or obese, developing Type II diabetes, and experiencing vascular events were increased even when considering baseline body mass indexes.

Brain responses are altered in those who consume artificial sweeteners compared with those who consume caloric sweeteners. In imaging studies of the human brain, sucrose activates dopaminergic midbrain areas involved with reward, but sucralose does not. Sucralose also reduces activation in other pathways related to taste when compared with sucrose. Current findings suggest that caution about the overall sweetening of the diet is warranted, regardless of whether the sweetener provides energy directly or not.

Dr. Frank Hu, Professor of Nutrition and Epidemiology at Harvard School of Public Health, states that in the short term, artificially sweetened beverages are preferable to the use of sugar-sweetened beverages. For those who want to kick the habit of drinking sugary sodas, diet soda may be the beverage equivalent to a nicotine patch. It can be used in small amounts for a short period of time. For most people, plain water and unsweetened coffee or tea are healthier alternatives to either artificially sweetened beverages or sugar-sweetened beverages.

NUTS ARE STILL HEALTHFUL

This topic is one that we have touched upon in the past and eating a handful of nuts is something that your editor, as well as myself, have done for quite some time. This most recent study from BMC Medicine, July 2013; 11:164 shows once again that eating a handful of nuts each day may prolong your life. This study was done with 7,216 men and women ages 55-80 and followed for almost five years in a study from Spain. Those taking three servings of nuts per week had a 39% lower death rate than those who did not eat nuts, a 55% lower risk of fatal heart attacks, and a 40% lower risk of death from cancer. These results agree with other major studies on nuts and health such as the Adventist Health Study, the Iowa Women's Health Study, and the Nurses' Health Study.

Nut eaters generally were far less fat, had smaller bellies, were less likely to smoke, were more likely to exercise, were far less likely to be diabetic and were less likely to take medication for high blood pressure, or heart disease. They also ate more vegetables, fruit and fish.

Eating nuts regularly is associated with reduced heart attack risk factors such as high cholesterol, high triglycerides, diabetes, and metabolic syndrome (Arch Intern Med 2010, 170:821-827). Many people shy away from nuts because of their high fat content, but most of the fat from nuts comes from the good fats—that of monounsaturated and polyunsaturated types. You get most health benefits from nuts if you eat them as a substitute for the saturated fats in meats and dairy products.

Nuts are higher in fiber, minerals, vitamins, and many bioactive compounds. All tree nuts are healthful: almonds, macadamia nuts, hazelnuts, pecans, pine nuts, pistachio nuts, walnuts and so forth. Walnuts are also a good source of healthy omega-3 fatty acids. Beans and other legumes such as peanuts are also healthful. Just don't eat them coated with sugar or chocolate!

CHILDHOOD LEAD POISONING – OUT WITH THE OLD SYSTEM AND IN WITH A NEW!

The Pennsylvania State Department of Health awarded a grant to the National Nursing Centers Consortium (NNCC). They're based in Philadelphia and are responsible for lead and healthy home cases throughout half of the Commonwealth. In order for the NNCC to be efficient, they will be sub-granting to Pinnacle Health to provide services in 3 counties, with Lancaster being one of them. Services include environmental investigations and healthy homes' assessments. The healthy homes' assessments are the primary focus.

Environmental investigations will only be done if a doctor calls Joyce Ravinskas at 782-6442. She will do an investigation if a child's lead level is between 15 and 19 on 2 occasions within a three-month period OR if any lead level is 20 or above.

If doctors fail to contact Pinnacle Health for referrals, the Pinnacle Health nurses will not know if an elevated blood lead level case exists, due to the nurses no longer having access to the Pennsylvania NEDSS system.

It's now up to us to make sure these unfortunate patients do not fall through the cracks.

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Alan S. Peterson, M.D.
Associate Director, Family and Community Medicine
Walter L. Aument Family Health Center
717-786-7383
aspeters@lghealth.org

Promise of Spring
David E. Newcomer, M.D.